

WE CLAIM:

1. A system for data extraction and conversion of client data for use in business analysis tools, comprising in combination:

a staging database that receives the client data and thereafter quantifies the client data, wherein the client data is quantified by analytic definitions, wherein the analytic definitions are  
~5 an identification of performance measures selected from the group consisting of account receivable levels, collections, coding, front-end billing processes, and payer values;

a clean database that receives the quantified data from the staging database and thereafter queries the quantified data to group data according to the analytic definitions;

one or more datamarts created by separating the grouped data received from the clean  
10 database according to the analytic definitions; and

one or more cubes created by processing the one or more datamarts using an on-line analytical processing engine, wherein the one or more cubes provide an analytical tool for evaluating business operations.

2. The system of claim 1, wherein the client data includes practice data, patient data, diagnosis data, insurance data, and transactional data.

3. The system of claim 1, wherein the account receivable levels analytic definition includes assessing whether an outstanding accounts receivable is at a reasonable level, assessing days in outstanding accounts receivable, and determining an accounts receivable trend.

4. The system of claim 1, wherein the collections analytic definition includes determining collection rates, denial rates, discounts, adjustments, and payment lag.

5. The system of claim 1, wherein the coding analytic definition includes determining whether evaluation and management coding is within expected levels, and determining a revenue opportunity for current procedural terminology codes.

6. The system of claim 1, wherein the front-end billing processes analytic definition includes quantifying charge lag, determining quality of payer data, identifying eligibility-related denials, identifying covered benefits-related denials, determining issues related to charge capture, and determining fee schedule quantities.

7. The system of claim 1, wherein the payer values analytic definition includes determining payer mix impact, observing varying collection rates, denial rates, contractual allowances by payer and financial class, and comparing payer reimbursement levels.

8. The system of claim 1, wherein the analytic definitions further include determining reimbursement rates per place of service compared with mix of place of services, determining visit volumes and reimbursements by physicians and locations, quantifying new visit volumes as a percentage of total visits, determining service mix and revenues by top current procedural

5 terminology codes, quantifying patient collections, observing denial reasons lists, observing payer lists, determining place of service listings, and assessing patient billing processes.

9. The system of claim 1, wherein the one or more cubes are multidimensional databases.

10. The system of claim 1, wherein the one or more cubes are selected from the group consisting of financial cube, payer cube, patient cube, physician cube, clinical cube, and electronic medical records cube.

11. A system for data extraction and conversion of client data for use in clinical analysis tools, comprising in combination:

a staging database that receives the client data and thereafter quantifies the client data, wherein the client data is quantified by analytic definitions, wherein the analytic definitions are

5 an identification of performance measures selected from the group consisting of identifying patients needing a return visit, identifying patients with risk factors, identifying patients with similar diagnosis, identifying patients with multiple diagnosis, analyzing referrals, determining clinical experience from different payer sources, determining adherence to quality measures, determining geographic distribution of patients, and tracking patients for lack of completion of  
10 ordered laboratory tests and referrals;

a clean database that receives the quantified data from the staging database and thereafter queries the quantified data to group data according to the analytic definitions;

one or more datamarts created by separating the grouped data received from the clean database according to the analytic definitions; and

one or more cubes created by processing the one or more datamarts using an on-line analytical processing engine, wherein the one or more cubes provide an analytical tool for evaluating clinical operations.

12. The system of claim 11, wherein the client data includes practice data, patient data, diagnosis data, insurance data, and transactional data.

13. The system of claim 11, wherein the one or more cubes are multidimensional databases.

14. The system of claim 11, wherein the one or more cubes are selected from the group consisting of financial cube, payer cube, patient cube, physician cube, clinical cube, and electronic medical records cube.

15. A method for data extraction and conversion of client data for use in business analysis tools, comprising in combination:

receiving client data;

creating a temporary database for storing the client data;

5        quantifying the client data, wherein the client data is quantified by analytic definitions, wherein the analytic definitions are an identification of performance measures selected from the group consisting of account receivable levels, collections, coding, front-end billing processes, and payer values;

creating a clean database that includes the quantified data, wherein the quantified data is

10        queried to group data according to the analytic definitions;

creating one or more datamarts by separating data in the clean database according to the analytic definitions; and

creating one or more cubes by processing the datamarts the one or more datamarts using an on-line analytical processing engine, wherein the one or more cubes provide an analytical tool  
15 for evaluating business operations.

16. The method of claim 15, wherein the client data includes practice data, patient data, diagnosis data, insurance data, and transactional data.

17. The method of claim 15, wherein the account receivable levels analytic definition includes assessing whether an outstanding accounts receivable is at a reasonable level, assessing days in outstanding accounts receivable, and determining an accounts receivable trend.

18. The method of claim 15, wherein the collections analytic definition includes determining collection rates, denial rates, discounts, adjustments, and payment lag.

19. The method of claim 15, wherein the coding analytic definition includes determining whether evaluation and management coding is within expected levels, and determining a revenue opportunity for current procedural terminology codes.

20. The method of claim 15, wherein the front-end billing processes analytic definition includes quantifying charge lag, determining quality of payer data, identifying eligibility-related

denials, identifying covered benefits-related denials, determining issues related to charge capture, and determining fee schedule quantities.

21. The method of claim 15, wherein the payer values analytic definition includes determining payer mix impact, observing varying collection rates, denial rates, contractual allowances by payer and financial class, and comparing payer reimbursement levels.

22. The method of claim 15, wherein the analytic definitions further include determining reimbursement rates per place of service compared with mix of place of services, determining visit volumes and reimbursements by physicians and locations quantifying new visit volumes as a percentage of total visits, determining service mix and revenues by top current procedural terminology codes, quantifying patient collections, observing denial reasons lists, observing payer lists, determining place of service listings, and assessing patient billing processes.

23. The method of claim 15, wherein the one or more cubes are multidimensional databases.

24. The method of claim 15, wherein the one or more cubes are selected from the group consisting of financial cube, payer cube, patient cube, physician cube, clinical cube, and electronic medical records cube.

25. A method for data extraction and conversion of client data for use in clinical analysis tools, comprising in combination:

receiving client data;

creating a temporary database for storing the client data;

5        quantifying the client data, wherein the client data is quantified by analytic definitions,  
wherein the analytic definitions are an identification of performance measures selected from the  
group consisting of identifying patients needing a return visit, identifying patients with risk  
factors, identifying patients with similar diagnosis, identifying patients with multiple diagnosis,  
analyzing referrals, determining clinical experience from different payer sources, determining  
10    adherence to quality measures, determining geographic distribution of patients, and tracking  
patients for lack of completion of ordered laboratory tests and referrals;

      creating a clean database that includes the quantified data, wherein the quantified data is  
queried to group data according to the analytic definitions;

      creating one or more datamarts by separating data in the clean database according to the  
15    analytic definitions; and

      creating one or more cubes by processing the datamarts the one or more datamarts using  
an on-line analytical processing engine, wherein the one or more cubes provide an analytical tool  
for evaluating clinical operations.

26.    The method of claim 25, wherein the client data includes practice data, patient data,  
diagnosis data, insurance data, and transactional data.

27.    The method of claim 25, wherein the one or more cubes are multidimensional databases.

28. The method of claim 25, wherein the one or more cubes are selected from the group consisting of financial cube, payer cube, patient cube, physician cube, clinical cube, and electronic medical records cube.

29. A system for client access to analytical data for use in evaluating business operations, comprising in combination:

a client device operable to fetch and display a view;

a database server including

5 a system management database, wherein the system management database includes client authorization data, wherein the client authorization data includes a database record associated with each authorized user that indicates which menus, views, and databases are available to the authorized user; and

10 and one or more cubes having analytical data, wherein the analytical data is converted client data, wherein the client data is quantified by analytic definitions, wherein the analytic definitions are an identification of performance measures selected from the group consisting of account receivable levels, collections, coding, front-end billing processes, and payer values; and

15 a server including an application operable to receive a request from the client device for a view, select the requested view, verify that a user of the client device is authorized to access the view by querying the database server, and if the user is authorized transmit the view to the client device, wherein the view includes the analytical data from the one or more cubes for use in evaluating business operations.



30. The system of claim 29, wherein the client device further includes an encryption/decryption utility for securely communicating with the server.
31. The system of claim 29, wherein server further includes an encryption/decryption utility for securely communicating with the client device.
32. The system of claim 29, wherein the database record further includes a query code that specifies an initial view to be displayed to the user.
33. The system of claim 29, wherein the client data includes practice data, patient data, diagnosis data, insurance data, and transactional data.
34. The system of claim 29, wherein the account receivable levels analytic definition includes assessing whether an outstanding accounts receivable is at a reasonable level, assessing days in outstanding accounts receivable, and determining an accounts receivable trend.
35. The system of claim 29, wherein the collections analytic definition includes determining collection rates, denial rates, discounts, adjustments, and payment lag.
36. The system of claim 29, wherein the coding analytic definition includes determining whether evaluation and management coding is within expected levels, and determining a revenue opportunity for current procedural terminology codes.

37. The system of claim 29, wherein the front-end billing processes analytic definition includes quantifying charge lag, determining quality of payer data, identifying eligibility-related denials, identifying covered benefits-related denials, determining issues related to charge capture, and determining fee schedule quantities.

38. The system of claim 29, wherein the payer values analytic definition includes determining payer mix impact, observing varying collection rates, denial rates, contractual allowances by payer and financial class, and comparing payer reimbursement levels.

39. The system of claim 29, wherein the analytic definitions further include determining reimbursement rates per place of service, compared with mix of place of services, determining visit volumes and reimbursements by physicians and locations, quantifying new visit volumes as a percentage of total visits, determining service mix and revenues by top current procedural terminology codes, quantifying patient collections, observing denial reasons lists, observing payer lists, determining place of service listings, and assessing patient billing processes.

40. The system of claim 29, wherein the one or more cubes are multidimensional databases.

41. The system of claim 29, wherein the one or more cubes are selected from the group consisting of financial cube, payer cube, patient cube, physician cube, clinical cube, and electronic medical records cube.

42. A system for client access to analytical data for use in evaluating clinical operations, comprising in combination:

a client device operable to fetch and display a view;

a database server including

5 a system management database, wherein the system management database includes client authorization data, wherein the client authorization data includes a database record associated with each authorized user that indicates which menus, views, and databases are available to the authorized user; and

and one or more cubes having analytical data, wherein the analytical data is

10 converted client data, wherein the client data is quantified by analytic definitions, wherein the analytic definitions are an identification of performance measures selected from the group consisting of identifying patients needing a return visit, identifying patients with risk factors, identifying patients with similar diagnosis, identifying patients with multiple diagnosis, analyzing referrals, determining clinical experience from

15 different payer sources, determining adherence to quality measures, determining geographic distribution of patients, and tracking patients for lack of completion of ordered laboratory tests and referrals; and

a server including a application operable to receive a request from the client device for a view, select the requested view, verify that a user of the client device is authorized to access the

20 view by querying the database server, and if the user is authorized transmit the view to the client device, wherein the view includes the analytical data from the one or more cubes for use in evaluating clinical operations.

43. The system of claim 42, wherein the client device further includes an encryption/decryption utility for securely communicating with the server.

44. The system of claim 42, wherein server further includes an encryption/decryption utility for securely communicating with the client device.

45. The system of claim 42, wherein the database record further includes a query code that specifies an initial view to be displayed to the user.

46. The system of claim 42, wherein the client data includes practice data, patient data, diagnosis data, insurance data, and transactional data.

47. The system of claim 42, wherein the one or more cubes are multidimensional databases.

48. The system of claim 42, wherein the one or more cubes are selected from the group consisting of financial cube, payer cube, patient cube, physician cube, clinical cube, and electronic medical records cube.

49. A method of accessing analytical data for use in evaluating business operations, comprising in combination:

receiving a request from a user to access the analytical data, wherein the analytical data is converted client data, wherein the client data is quantified by analytic definitions, wherein the

5 analytic definitions are an identification of performance measures selected from the group

consisting of account receivable levels, collections, coding, front-end billing processes, and payer values;

verifying credentials of the user;

determining extent of access of the user having proper credentials;

10 displaying an initial view assigned to the user, wherein the initial view provides a list of fields illustrating contents of a cube being used by the initial view; and

modifying the view in response to the user selecting options from the list of fields, wherein the view displays the analytical data for evaluating business operations.

50. The method of claim 49, wherein the user requests access to the analytical data from a web page.

51. The method of claim 50, wherein the user requests access to the analytical data by entering credentials on a logon form on the web page.

52. The method of claim 51, wherein a web server compares the credentials with data in a system management database.

53. The method of claim 52, wherein if the credentials do not match the data in the system management database, an error message is transmitted to the user.

54. The method of claim 49, wherein determining the extent of access is performed by reading a database record associated with the user, wherein the database record dictates which menus, views, and databases are available to the user.

55. The method of claim 49, wherein the options are selected from the group consisting of selecting and opening another pre-written view from a user menu, regenerating a current pre-written view, displaying a query code used to generate a view, exporting contents of the view to another application, hiding the list of fields, exposing the list of fields, modifying the view, saving a modified view, and exiting.

56. The method of claim 49, wherein the client data includes practice data, patient data, diagnosis data, insurance data, and transactional data.

57. The method of claim 49, wherein the account receivable levels analytic definition includes assessing whether an outstanding accounts receivable is at a reasonable level, assessing days in outstanding accounts receivable, and determining an accounts receivable trend.

58. The method of claim 49, wherein the collections analytic definition includes determining collection rates, denial rates, discounts, adjustments, and payment lag.

59. The method of claim 49, wherein the coding analytic definition includes determining whether evaluation and management coding is within expected levels, and determining a revenue opportunity for current procedural terminology codes.

60. The method of claim 49, wherein the front-end billing processes analytic definition includes quantifying charge lag, determining quality of payer data, identifying eligibility-related denials, identifying covered benefits-related denials, determining issues related to charge capture, and determining fee schedule quantities.

61. The method of claim 49, wherein the payer values analytic definition includes determining payer mix impact, observing varying collection rates, denial rates, contractual allowances by payer and financial class, and comparing payer reimbursement levels.

62. The method of claim 49, wherein the analytic definitions further include determining reimbursement rates per place of service compared with mix of place of services, determining visit volumes and reimbursements by physicians and locations, quantifying new visit volumes as a percentage of total visits, determining service mix and revenues by top current procedural terminology codes, quantifying patient collections, observing denial reasons lists, observing payer lists, determining place of service listings, and assessing patient billing processes.

63. A method of accessing analytical data for use in evaluating clinical operations, comprising in combination:

receiving a request from a user to access the analytical data, wherein the analytical data is

5 converted client data, wherein the client data is quantified by analytic definitions, wherein the analytic definitions are an identification of performance measures selected from the group consisting of identifying patients needing a return visit, identifying patients with risk factors,

identifying patients with similar diagnosis, identifying patients with multiple diagnosis, analyzing referrals, determining clinical experience from different payer sources, determining adherence to quality measures, determining geographic distribution of patients, and tracking patients for lack of completion of ordered laboratory tests and referrals;

- 5            verifying credentials of the user;
- determining extent of access of the user having proper credentials;
- displaying an initial view assigned to the user, wherein the initial view provides a list of fields illustrating contents of a cube being used by the initial view; and
- modifying the view in response to the user selecting options from the list of fields,
- 10        wherein the view displays the analytical data for evaluating clinical operations.

64.        The method of claim 63, wherein the user requests access to the analytical data from a web page.

65.        The method of claim 64, wherein the user requests access to the analytical data by entering credentials on a logon form on the web page.

66.        The method of claim 65, wherein a web server compares the credentials with data in a system management database.

67.        The method of claim 66, wherein if the credentials do not match the data in the system management database, an error message is transmitted to the user.



68. The method of claim 63, wherein determining the extent of access is performed by reading a database record associated with the user, wherein the database record dictates which menus, views, and databases are available to the user.

69. The method of claim 63, wherein the options are selected from the group consisting of selecting and opening another pre-written view from a user menu, regenerating a current pre-written view, displaying a query code used to generate a view, exporting contents of the view to another application, hiding the list of fields, exposing the list of fields, modifying the view,  
5 saving a modified view, and exiting.

70. The method of claim 63, wherein the client data includes practice data, patient data, diagnosis data, insurance data, and transactional data.